

STATEMENT OF BASIS

as required by LAC 33:IX.3109, for draft **Louisiana Pollutant Discharge Elimination System Permit No. LA0096393; AI 41587; PER20060001** to discharge to waters of the **State of Louisiana** as per LAC 33:IX.2311.

The **permitting authority** for the Louisiana Pollutant Discharge Elimination System (LPDES) is:

Louisiana Department of Environmental Quality
Office of Environmental Services
P. O. Box 4313
Baton Rouge, Louisiana 70821-4313

- I. **THE APPLICANT IS:** Garden Heights Water Company
 Garden Heights Subdivision / Apartments
 102 St. Bede Place #A
 Youngsville, LA 70592

- II. **PREPARED BY:** Ronda Burtch

- DATE PREPARED:** March 5, 2007

- III. **PERMIT ACTION:** reissue LPDES permit LA0096393, AI 41587; PER20060001

- LPDES application received: November 21, 2006

- LPDES permit issued: November 1, 2001
- LPDES permit expired: October 31, 2006

IV. **FACILITY INFORMATION:**

- A. The application is for the discharge of treated sanitary wastewater from a privately owned treatment works serving the Garden Heights Subdivision and Apartments.

- B. The permit application does not indicate the receipt of industrial wastewater.

- C. The facility is located at the intersection of Chemin Metairie Road and St. Seton Lane in Youngsville, Lafayette Parish.

- D. The treatment facility consists of a 55,000 GPD extended aeration sewage treatment plant. Disinfection is by chlorination.

E. **Outfall 001**

Discharge Location: Latitude 30° 07' 17" North
 Longitude 92° 00' 58" West

Description: treated sanitary wastewater

Expected Flow: 30 Homes x 400 gallons/day/home = 0.012 MGD
 64-One Bedroom Apts. x 250 gallons/day/home = 0.016 MGD
 51-Two Bedroom Apts. x 300 gallons/day/home = 0.0153 MGD
 12-Three Bedroom Apts. x 400 gallons/day/home = 0.0048 MGD

Total Expected Flow: 0.0481 MGD

Calculations for gallons per day were based upon figures obtained from Chapter 15 of the State of Louisiana Sanitary Code, Department of Health and Hospitals, Office of Public Health.

Please note that if the facility grows to a discharge beyond the design capacity of the facility, additional sewage treatment may be required with prior approval of the facility's plans by the

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Louisiana Department of Health and Hospitals and notification must be submitted to the LDEQ. Also, if the expected flow reaches or exceeds the design capacity of the facility, a permit modification may be required.

V. RECEIVING WATERS:

The discharge is into an unnamed ditch, thence into Anselm Coulee, thence into the Vermilion River in segment 060802 of the Vermilion-Teche River Basin. This segment is not listed on the 303(d) list of impaired waterbodies.

The designated uses and degree of support for Segment 060802 of the Vermilion-Teche River Basin are as indicated in the table below^{1/}:

Overall Degree of Support for Segment 060802	Degree of Support of Each Use						
	Primary Contact Recreation	Secondary Contact Recreation	Propagation of Fish & Wildlife	Outstanding Natural Resource Water	Drinking Water Supply	Shell fish Propagation	Agriculture
Partial	Not Supported	Not Supported	Not Supported	N/A	N/A	N/A	Full

^{1/}The designated uses and degree of support for Segment 060802 of the Vermilion-Teche River Basin are as indicated in LAC 33:IX.1123.C.3, Table (3) and the 2004 Water Quality Management Plan, Water Quality Inventory Integrated Report, Appendix A, respectively.

VI. ENDANGERED SPECIES:

The receiving waterbody, Subsegment 060802 of the Vermilion-Teche River Basin, is not listed in Section II.2 of the Implementation Strategy as requiring consultation with the U. S. Fish and Wildlife Service (FWS). This strategy was submitted with a letter dated September 29, 2006 from Watson (FWS) to Brown (LDEQ). Therefore, in accordance with the Memorandum of Understanding between the LDEQ and the FWS, no further informal (Section 7, Endangered Species Act) consultation is required. It was determined that the issuance of the LPDES permit is not likely to have an adverse effect on any endangered or candidate species or the critical habitat. The effluent limitations established in the permit ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat.

VII. HISTORIC SITES:

The discharge is from an existing facility location, which does not include an expansion beyond the existing perimeter. Therefore, there should be no potential effect to sites or properties on or eligible for listing on the National Register of Historic Places, and in accordance with the 'Memorandum of Understanding for the Protection of Historic Properties in Louisiana Regarding LPDES Permits' no consultation with the Louisiana State Historic Preservation Officer is required.

VIII. PUBLIC NOTICE:

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit modification and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the statement of basis. A request for a public hearing shall be in writing and

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shall state the nature of the issues proposed to be raised in the hearing.
 Public notice published in:

Local newspaper of general circulation

Office of Environmental Services Public Notice Mailing List

For additional information, contact:

Ms. Ronda Burtch
 Permits Division
 Department of Environmental Quality
 Office of Environmental Services
 P. O. Box 4313
 Baton Rouge, Louisiana 70821-4313

IX. PROPOSED PERMIT LIMITS:

Subsegment 060802, Vermilion River - From New Flanders (Ambassador Caffery) Bridge, La. Hwy. 3073 to Intracoastal Waterway, is not listed on LDEQ's Final 2004 303(d) List as impaired. However subsegment 060802 was previously listed as impaired for phosphorus, nitrogen (NITRATE + NITRITE AS N), organic enrichment/low DO, pathogen indicators, suspended solids/turbidity/siltation, and Carbofuran, for which the below TMDLs have been developed. The Department of Environmental Quality reserves the right to impose more stringent discharge limitations and/or additional restrictions in the future to maintain the water quality integrity and the designated uses of the receiving water bodies based upon additional TMDLs and/or water quality studies. The DEQ also reserves the right to modify or revoke and reissue this permit based upon any changes to establish TMDLs for this discharge, or to accommodate for pollutant trading provisions in approved TMDL watersheds as necessary to achieve compliance with water quality standards.

The following TMDLs have been established for subsegment 060802:

1999 Review and Assessment of the 1987 Vermilion River Watershed TMDL for Dissolved Oxygen

The 1999 Review and Assessment of the 1987 Vermilion River Watershed TMDL for Dissolved Oxygen, was revised in December 1999, and approved by EPA on April 5, 2001. This TMDL re-established that NPDES permits for individual point sources in the Vermilion Watershed should continue to be issued on the basis of flow rates as follows:

<u>FLOW RATE</u>	<u>PERMIT LIMITS</u>
Greater than 25,000 gpd	May – December: 10 mg/l CBOD ₅ /5 mg/l NH ₃ -N/5 mg/l DO January – April: 20 mg/l CBOD ₅ /10 mg/l NH ₃ -N/5 mg/l DO
25,000 gpd or less	secondary limits year round

In addition, LDEQ issued a declaratory ruling on April 29, 1996, concerning this language and stated, "That DO directly correlates with overall nutrient impact is a well-established biological and ecological principle. Thus, when the LDEQ maintains and protects DO, the LDEQ is in effect also limiting and controlling nutrient concentrations and impacts." The nitrogen loading required to maintain the dissolved oxygen standards is the nitrogen TMDL. Therefore, this discharge will be permitted accordingly for organic enrichment/low DO, phosphorus, and nitrogen (NITRATE + NITRITE AS N).

Vermilion River TMDL for Fecal Coliform

The Vermilion River TMDL for Fecal Coliform was finalized on April 5, 2001, addressing the presence of pathogen indicators in the watershed. As per this TMDL, "...there will be no change in the permit requirements based upon a wasteload allocation resulting from this TMDL." Therefore, Fecal Coliform effluent limitations will remain as previously permitted.

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TMDL for TSS, Turbidity, and Siltation for the 15 Subsegments in the Vermilion River Basin

As per the TMDL for TSS, Turbidity, and Siltation for the 15 Subsegments in the Vermilion River Basin, "Point source loads are so small as to be insignificant, and because effective policies are in place to limit TSS discharges, no specific reductions from point sources are required." Therefore, TSS limitations will remain as previously permitted.

TMDL for the Pesticide Carbofuran in the Mermentau and Vermilion-Teche River Basins

The TMDL for the Pesticide Carbofuran in the Mermentau and Vermilion-Teche River Basins was finalized on March 21, 2002, and states, "No point sources are known to discharge Carbofuran; therefore, no allocation was given to point source discharges in the Vermilion-Teche River Basin."

Final Effluent Limits:

OUTFALL 001

Final limits shall become effective on the effective date of the permit and expire on the expiration date of the permit.

Effluent Characteristic	Monthly Avg. (lbs./day)	Monthly Avg.	Weekly Avg.	Basis
CBOD ₅				
May – December	N/A*	10 mg/l	15 mg/l	Limits are set in accordance with the 1999 Review and Assessment of the 1987 Vermilion River Watershed TMDL for Dissolved Oxygen for dischargers with flows greater than 25,000 GPD.
January – April	N/A*	20 mg/l	30 mg/l	
TSS	N/A*	15 mg/l	23 mg/l	Limits are set through Best Professional Judgment and in accordance with similar facilities in Subsegment 060802 of the Vermilion – Teche River Basin.
Ammonia-Nitrogen				
May - December	N/A*	5 mg/l	10 mg/l	Limits are set in accordance with the 1999 Review and Assessment of the 1987 Vermilion River Watershed TMDL for Dissolved Oxygen for dischargers with flows greater than 25,000 GPD.
January – April	N/A*	10 mg/l	20 mg/l	
Dissolved Oxygen	N/A*	5 mg/l**	N/A	Limits are set in accordance with the 1999 Review and Assessment of the 1987 Vermilion River Watershed TMDL for Dissolved Oxygen for dischargers with flows greater than 25,000 GPD.

*Concentration limits are used in accordance with LAC 33:IX.2709.F.1.b which states that mass limitations are not necessary when applicable standards and limitations are expressed in other units of measurement. LAC 33:IX.709.B references LAC 33:IX.711 which express BOD₅ and TSS in terms of concentration.

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****This Dissolved Oxygen limit is the lowest allowable average of daily discharges over a calendar month. When monitoring is conducted, the Dissolved Oxygen shall be analyzed immediately, as per 40 CFR 136.3.**

Other Effluent Limitations:

1) Fecal Coliform

The discharge from this facility is into a water body which has a designated use of Primary Contact Recreation. According to LAC 33:IX.1113.C.5.b.i, the fecal coliform standards for this water body are 200/100 ml and 400/100 ml. Therefore, the limits of 200/100 ml (Monthly Average) and 400/100 ml (Weekly Average) are proposed as Fecal Coliform limits in the permit. These limits are being proposed through Best Professional Judgement in order to ensure that the water body standards are not exceeded, and due to the fact that existing facilities have demonstrated an ability to comply with these limitations using present available technology.

2) pH

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units at any time. (Limits as established through BPJ considering BCT for similar waste streams in accordance with LAC 33:IX.5905.C.).

3) Solids and Foam

There shall be no discharge of floating solids or visible foam in other than trace amounts in accordance with LAC 33:IX.1113.B.7.

X. PREVIOUS PERMITS:

LPDES Permit No. LA0096393: Issued: November 1, 2001
 Expired: December 31, 2006

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>		<u>Monitoring Requirements</u>	
	<u>Daily Avg.</u>	<u>Daily Max.</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow	Report	Report	1/month	Measure
CBOD ₅				
April – November	10 mg/l	15 mg/l	1/month	Grab
December – March	20 mg/l	30 mg/l	1/month	Grab
TSS	15 mg/l	23 mg/l	1/month	Grab
Ammonia-Nitrogen				
(Apr. 1- Nov. 30)	5 mg/l	10 mg/l	1/month	Grab
(Dec. 1-Mar. 31)	10 mg/l	20 mg/l	1/month	Grab
Dissolved Oxygen	5 mg/l	----	1/month	Grab
Fecal Coliform Colonies				
colonies/100 ml	200	400	1/month	Grab
pH (Standard Units)	Range (6.0 su – 9.0 su)		1/month	Grab

XI. ENFORCEMENT AND SURVEILLANCE ACTIONS:

A) Inspections

A review of the files indicates that there are no recent inspections on file for this facility.

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B) Compliance and/or Administrative Orders

A review of the files indicates that no enforcement actions have been administered against this facility.

C) DMR Review

A review of the discharge monitoring reports for the period beginning October 1, 2004 through September 30, 2006 has revealed the following violations:

Month	Parameter	DMR Reported Value	Permit Limit
April 2005	TSS, Monthly Avg.	17 mg/l	15 mg/l
	Ammonia-Nitrogen, Monthly Avg.	11 mg/l	5 mg/l
	Ammonia-Nitrogen, Weekly Avg.	11 mg/l	10 mg/l
December 2005	TSS, Monthly Avg.	16 mg/l	15 mg/l
September 2006	Dissolved Oxygen, Monthly Avg.	4.2 mg/l	5 mg/l min.
	TSS, Monthly Avg.	25 mg/l	15 mg/l
	TSS, Weekly Avg.	25 mg/l	23 mg/l
	Ammonia-Nitrogen, Monthly Avg.	7.1 mg/l	7.1 mg/l

- Please note that the DMRs for October 2004 and May – June 2005 were not submitted or were missing from the file.

XII. ADDITIONAL INFORMATION:

The Department of Environmental Quality reserves the right to impose more stringent discharge limitations and/or additional restrictions in the future to maintain the water quality integrity and the designated uses of the receiving water bodies based upon additional water quality studies and/or TMDL's. The DEQ also reserves the right to modify or revoke and reissue this permit based upon any changes to established TMDL's for this discharge, or to accommodate for pollutant trading provisions in approved TMDL watersheds as requested by the permittee and/or as necessary to achieve compliance with water quality standards. Therefore, prior to upgrading or expanding this facility, the permittee should contact the Department to determine the status of the work being done to establish future effluent limitations and additional permit conditions.

At present, the **Monitoring Requirements, Sample Types, and Frequency of Sampling** as shown in the permit are standard for facilities of flows between 0.02 and 0.10 MGD.

Effluent Characteristics

Monitoring Requirements

	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow	1/week	Measure
CBOD ₅	1/month	Grab
Total Suspended Solids	1/month	Grab
Ammonia-Nitrogen	1/month	Grab
Dissolved Oxygen	1/month	Grab
Fecal Coliform Bacteria	1/month	Grab
pH	1/month	Grab

XIII TENTATIVE DETERMINATION:

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to reissue a permit for the discharge described in this Statement of Basis.

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XIV REFERENCES:

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 8, "Wasteload Allocations / Total Maximum Daily Loads and Effluent Limitations Policy," Louisiana Department of Environmental Quality, 2005.

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 5, "Water Quality Inventory Section 305(b) Report," Louisiana Department of Environmental Quality, 1998.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Chapter 11 - "Louisiana Surface Water Quality Standards," Louisiana Department of Environmental Quality, 2004.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Subpart 2 - "The LPDES Program," Louisiana Department of Environmental Quality, 2004.

Low-Flow Characteristics of Louisiana Streams, Water Resources Technical Report No. 22, United States Department of the Interior, Geological Survey, 1980.

Index to Surface Water Data in Louisiana, Water Resources Basic Records Report No. 17, United States Department of the Interior, Geological Survey, 1989.

LPDES Permit Application to Discharge Wastewater, Garden Heights Water Company, Garden Heights Subdivision / Apartments, November 21, 2006.